

METHODS AND APPARATUS FOR ATTACHING A HEAT SINK TO A CIRCUIT
BOARD COMPONENT

ABSTRACT OF THE DISCLOSURE

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A retainer directly attaches to a circuit board component and to a heat sink and
secures the circuit board component to the heat sink. The retainer provides a
mechanical attachment between the heat sink and the circuit board component. Such
mechanical attachment maintains thermal communication between the heat sink and the
10 circuit board component in the absence of a thermally conductive adhesive between the
heat sink and the circuit board component for the operational life of the circuit board
component. Furthermore, because the retainer attaches directly to the circuit board
component and to the heat sink, the retainer minimizes the necessity for use of mounting
holes in the circuit board associated with the circuit board component to secure the heat
15 sink to the circuit board component.